

ABSTRACT OF THE DISCLOSURE

A solid-state imaging device that can include a pixel array where a plurality of unit pixels including a photo diode and an insulated gate field effect transistor for detecting photocharges are arranged, and a control circuit that controls the operation of the pixel array. The control circuit can include a drain control circuit that provides any of constant voltage, a constant current, and constant charges to a drain diffused region. The control circuit previously forward biases a junction region between a semiconductor substrate of a first conductivity type and a semiconductor layer of a second conductivity type by any of the constant voltage, the constant current, and the constant charges, that is provided from the drain control circuit to the drain diffused region, so as to accumulate a predetermined amount of charges of a predetermined conductivity type in an accumulation region, and the charges of a predetermined conductivity type accumulated in the accumulation region are discharged thereafter. Accordingly the invention can avoid deterioration of image quality caused by a residual image due to photocharges accumulated in previous imaging.